

PEO C4I and Space / AFCEA Discussions

This presentation contains discussion points that were presented to Dennis Bauman, PEO C4I and SPACE, on October 19, 2004. This presentation should be viewed as initial points for future discussion and consideration.



AFCEA

San Diego Chapter

Industry Participants



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San Diego Chapter

19 October 2004

Agenda

- Executive Summary
- Background
- Recommended Program Hierarchy
- Contracting
- Lead / Follower Projects
- Part II. How the PEO:
 - Focuses on Capabilities Vice Products
 - Becomes C4I Provider for New Platforms
 - Becomes Even More Efficient
 - Aligns to PEO C4I Roadmap



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Executive Summary

- Why We Are Here.
- Major Findings & Recommendations.
- Implications of the Major Findings & Recommendations.
- Issues Needing More Study.



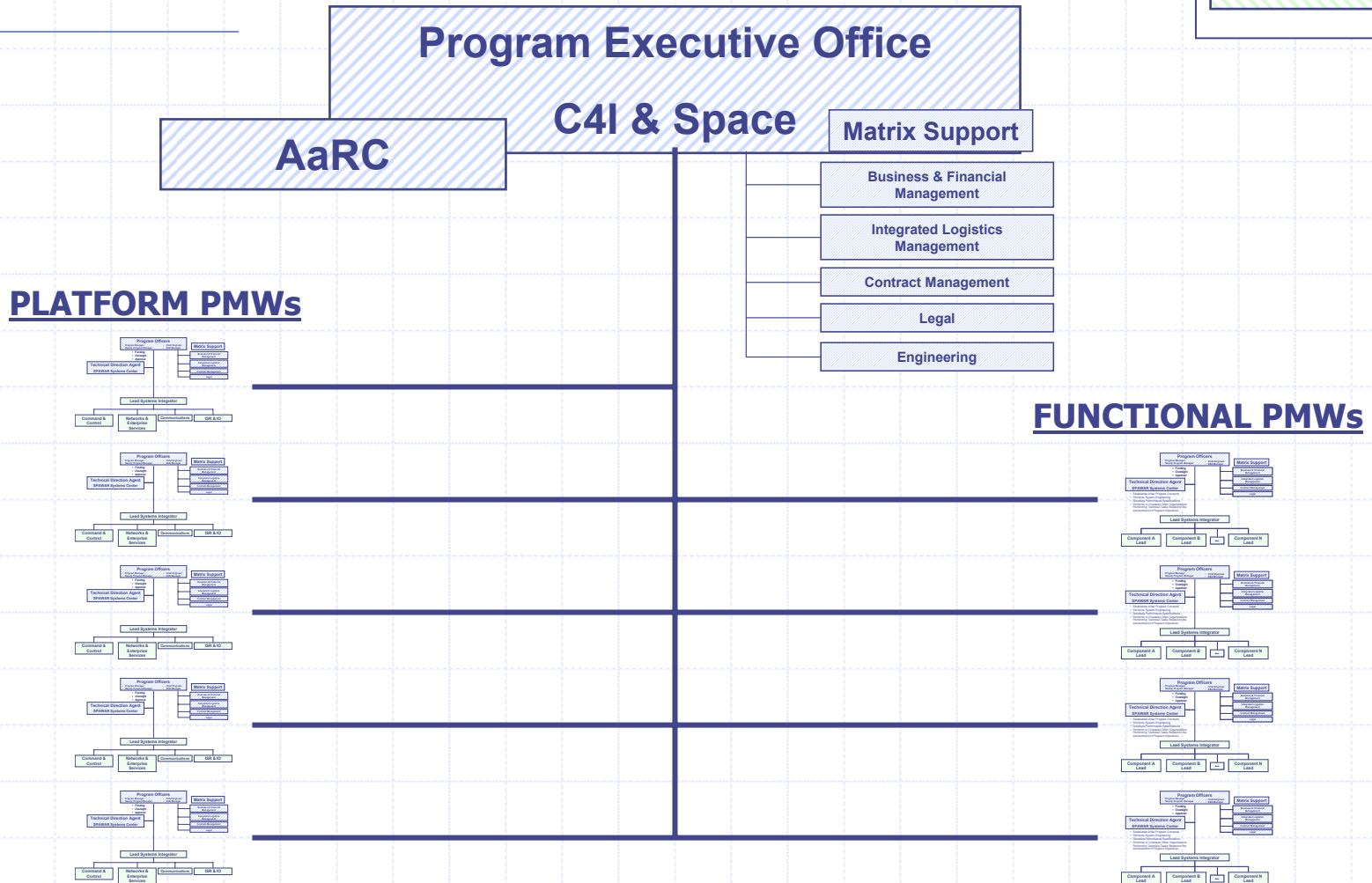
Why We Are Here

- Based on your letter of 17 June 2004, Ser PEO C4I/294 and our meeting with you on 26 July 2004, we have prepared a response.
- En route to that response, we held discussions with:
 - Jim Churchill, 2 & 3 September.
 - Roadmap Brief, 9 September.
 - SPAWAR 05, 13 September.
 - SPAWAR 04, 23 September.
 - SSC SD, 27 September.
 - SPAWAR 00A, 28 September.
 - Andrew Cox, 29 September & 6 October.
 - SPAWAR 02, 13 October.



PEO Hierarchy

LEGEND
Government
Contractor



Program Hierarchy: Functional Program Offices

LEGEND

Government

Contractor

Program Officers

- Program Manager
- Deputy Program Manager
- Chief Engineer
- R&D Manager
- Funding
- Oversight
- Approval

Technical Direction Agent SPAWAR Systems Center

- Establishes Initial Program Concepts
- Performs System Engineering
- Develops Performance Specifications
- Performs or Oversees Other Organizations Performing Technical Tasks Related to the Achievement of Program Objectives.

Matrix Support

Business & Financial
Management

Integrated Logistics
Management

Contract Management

Legal

Engineering

Lead Systems Integrator

Component A
Lead

Component B
Lead

...

Component N
Lead



Major Findings & Recommendations

■ Program Hierarchy

- Architecture and Roadmap Council (AaRC) at the PEO level.
- Technical Direction Agents (TDAs) Inserted into Each Program Office.
- Lead Systems Integrators (LSIs) Central to Each Program Office.
- Align Requirements and Funding to Functional & Platform PMWs.
- Define Interfaces with SPAWAR Codes.

■ Contracting

- A Comprehensive Set of Source Selection Criteria, Incentive Options, and Objective Performance Metrics.



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Major Findings & Recommendations

- Roadmap
 - Coordinate the Roadmap with ONR, NETWARCOM, etc.
- Lead / Follower Projects
 - LSI Role.
 - “Skunk Works”
 - Post-Milestone C Program Management.
 - “Full Service” Contractor Model.
- Moving the Cheese
 - AFCEA Team Meet with PMs, etc.
 - Facilitated PEO Off-site Series.
 - PEO Staff; PMs; DPMs; etc.



Implications of the Findings & Recommendations

- Program Hierarchy
 - AaRC is Government Role.
 - Aligns Government and Contractor Roles.
 - LSI Is the Prime Contractor for Entire Program Office.
 - Program Office Is Lean.
 - Less Detailed Government Oversight?
 - Clarifies Promotion Paths.
- Contracting
 - Goal is Maximum Feasible Term for LSI.
 - Current Program Contracts Must Transition.
 - Must Have a Re compete Strategy Before Issuing the First Contract.

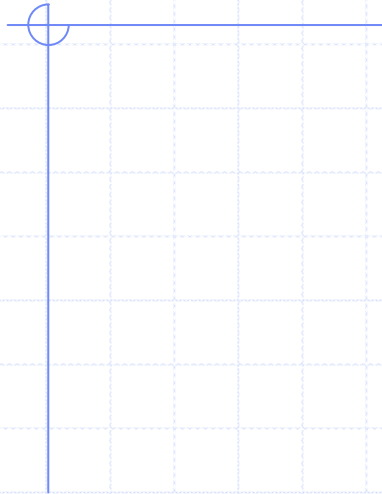


Issues Needing More Study

- The LSI Function
 - Are There Any Success Stories for This Business Model?
 - Can the Government Deliver Products Under This Model?
 - Can the Government Afford This Model?
- Roles and Responsibilities
 - AaRC
 - TDA
 - MATRIX Support
- Other Lead / Follower Projects
- Moving the Cheese



Background



What You Asked¹

- Transform Our Systems So That Our Entire C4I and Space Enterprise Can Operate as a Single War Fighting “Weapon.”
 - Government and Industry Jointly Discuss and Understand The Technical Roadmap to Ensure a Full Understanding of The Objectives, Voids, and Potential Issues.
- Increase the Efficiency and Effectiveness of the PEO in Acquiring and Supporting Our Systems.
 - Adopt the Most Effective Acquisition Strategies, Best Practices, and Contract Incentives to Facilitate Cost Reduction and the Delivery of Best Value Solutions.

1. PEO ltr of 17 June 2004, Ser PEO C4I/294



What We Heard²:

- Move Program Development to Contractor Level.
 - Can Incentivize Success
 - Use Lead Systems Integrator(s)
- Efficiency & Effectiveness
 - Improve both, but not efficiency at the cost of effectiveness.
- Take Government Out of Roles That Are Not Inherently Governmental.
 - Systems Integration
 - Production
- Use the System Centers as Technical Direction Agents.
- Identify Innovative Means for Systems Engineering and Integration Contracting.
 - SE&I Structure Not Seen as a Successful Model
- Make PEO C4I and Space the “Go To” Agency for New Construction.
- Make C4I a Weapon System.

2. PEO AFCEA meeting of 26 July 2004.



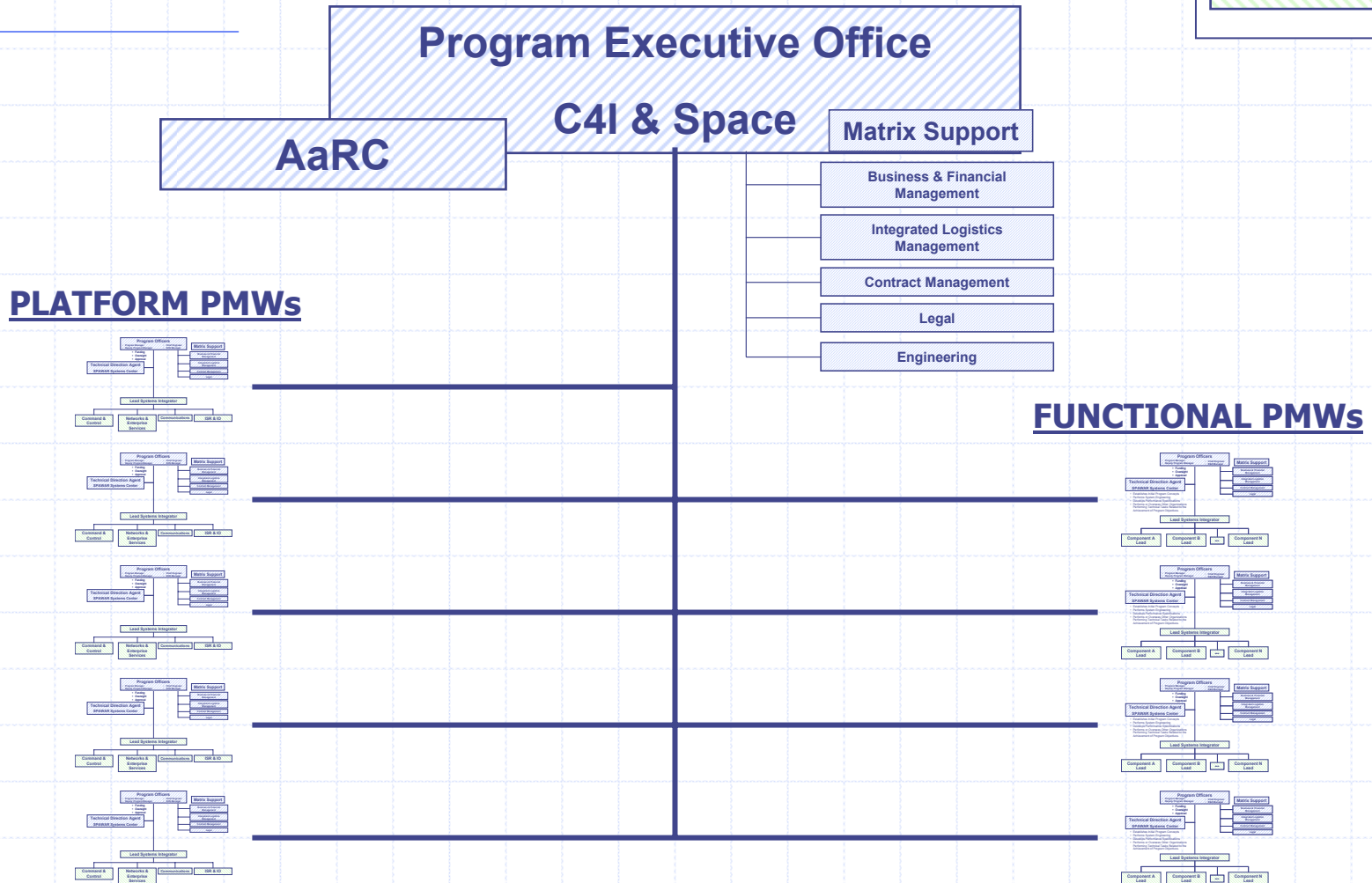
Recommended Program Hierarchy

Implementing What You Asked
and What We Heard

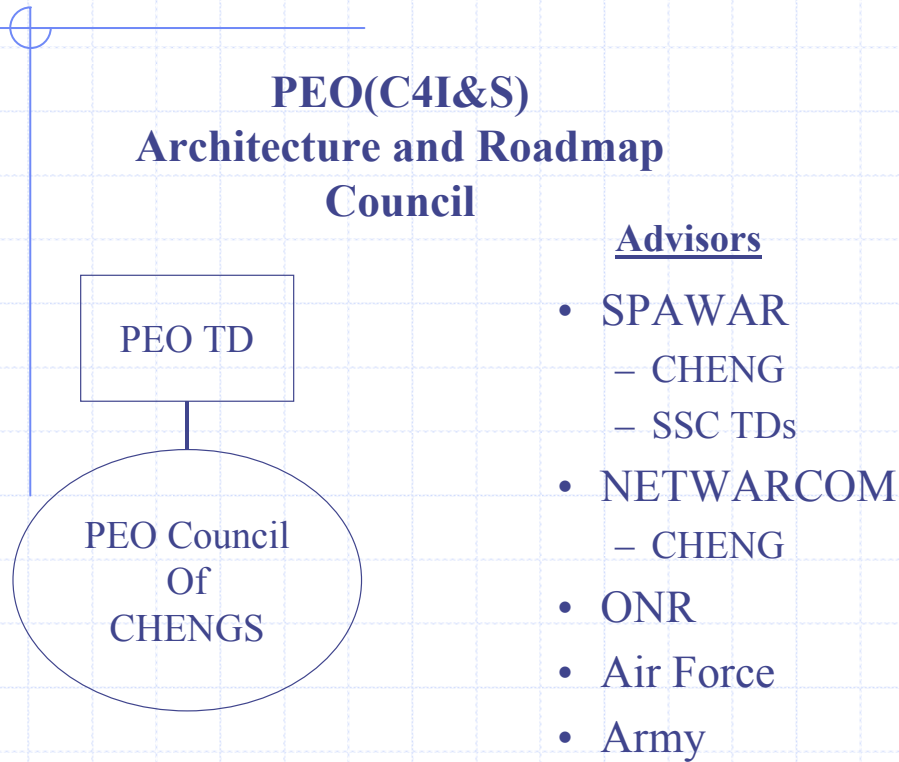


PEO Hierarchy

LEGEND
 Government
 Contractor



Architecture and Roadmap Council



NOTE: PEO CHENG, etc. are successfully delivering architectures. The council could provide an incremental improvement to a good process and good products.

Charter

- **Architecture**
 - Advise as to the target architectures for PEO product lines.
 - Recommend team members for producing required architectures.
 - Review and comment on proposed architectures.
- **Roadmap**
 - Advise on the vision, goals, and objectives.
 - Advise on the roadmap structure.
 - Review and comment on proposed roadmap.



Program Hierarchy: Functional Program Offices

LEGEND

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Contractor

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Lead Systems Integrator

Component A
Lead

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Lead

...

Component N
Lead



Contracting Options

- LSI Is the Prime, and Selects Either One of Their Own Divisions, an Appropriate Government Agency, or an Unaffiliated Company to Furnish Subsystems or Components.
- LSI Is Only One of the Prime Contractors.
 - Unaffiliated Companies and Appropriate Government Agencies Are Awarded Prime Contracts for the Subsystems or Components.
 - LSI Receives Subsystems or Components As Government Furnished Equipment.
- A Mix of the Two Options Above.
 - The LSI is a Prime.
 - Some Subsystems or Components are Provided by Unaffiliated Companies.

“Because of the potential for bias in such decisions, government insight into the contractor selection process may be necessary to ensure fairness and the best value.”¹

“...if all else fails, officials should procure subsystems or components directly and furnish it to a prime contractor...”¹

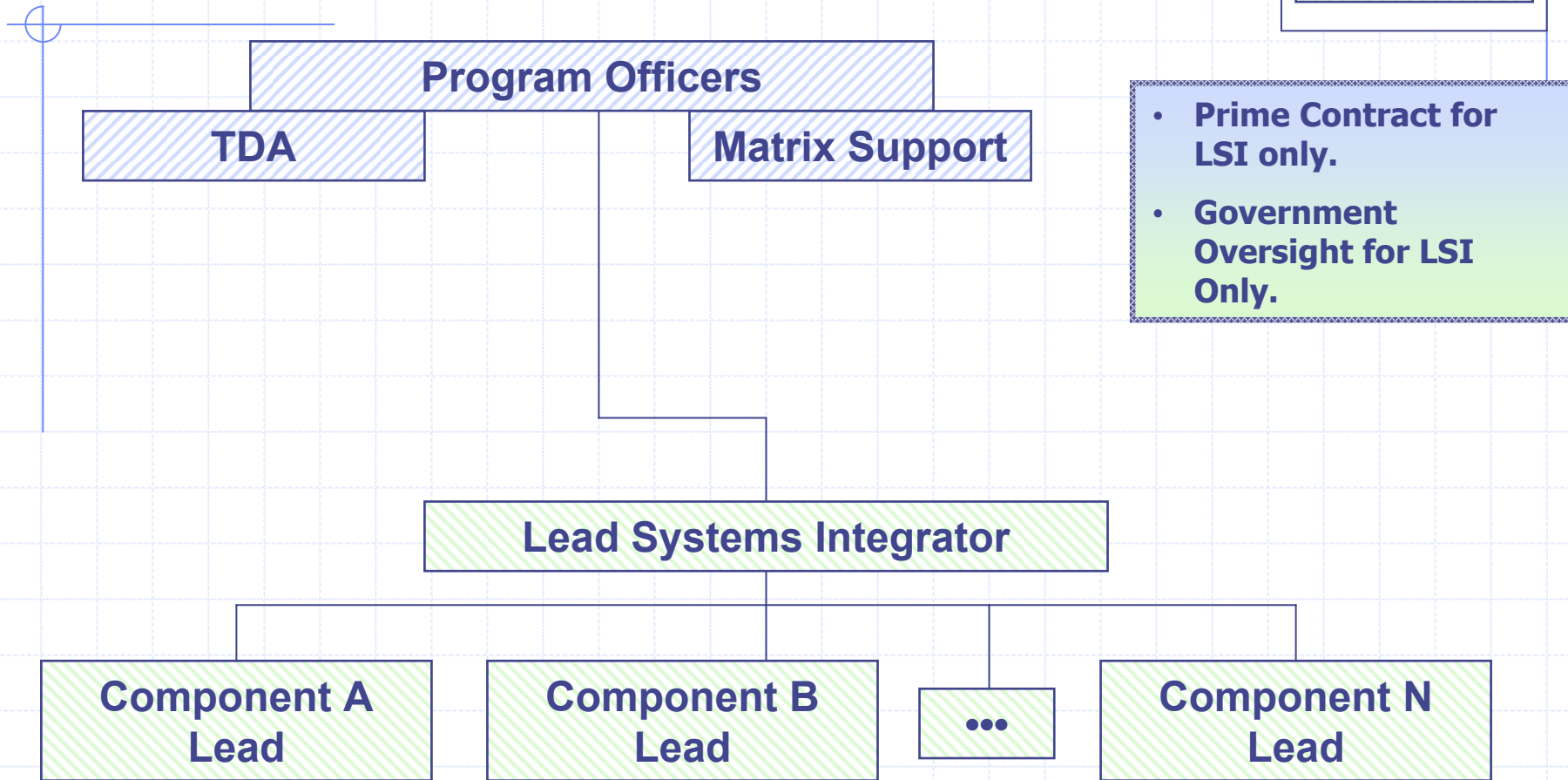


Program Hierarchy – One Prime

LEGEND

Government

Contractor



Structure is Tailored:

- Matrix Support Size
- TDA Size
- APM/Deputy APM Requirements

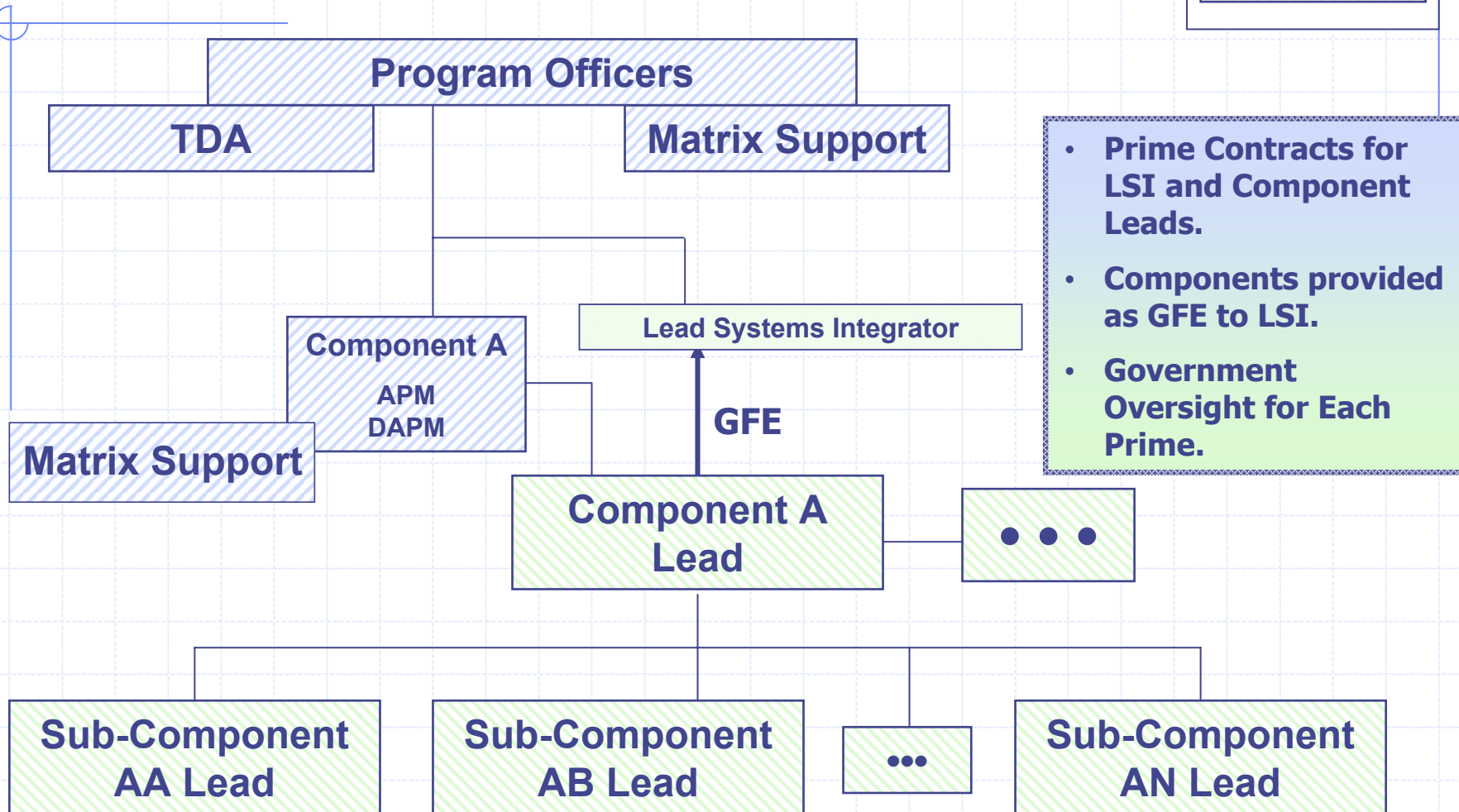


Program Hierarchy – Multiple Primes

LEGEND

Government

Contractor



Structure is Tailored:

- Matrix Support Size
- TDA Size
- APM/Deputy APM Requirements

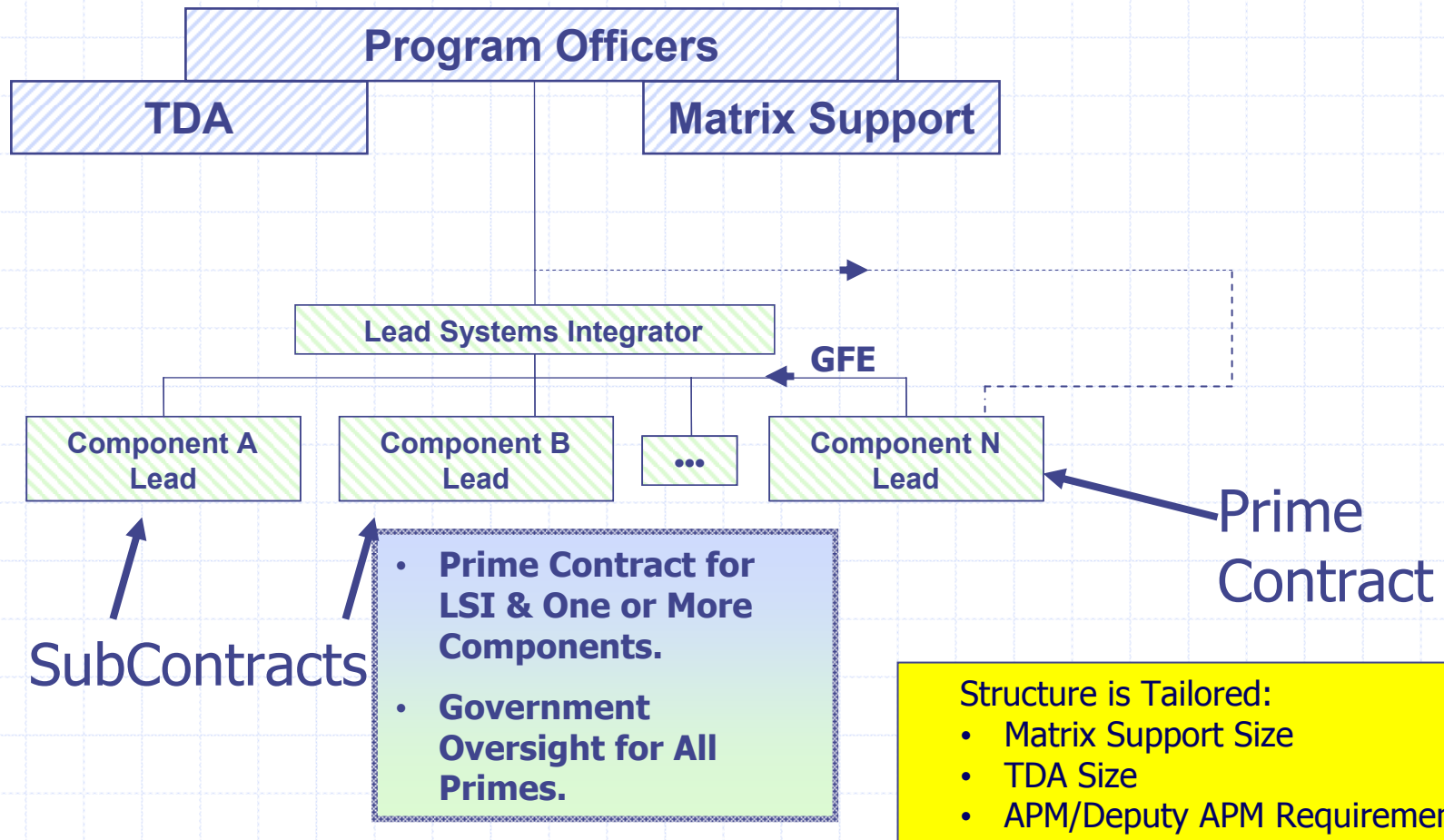


Program Hierarchy – Mix of Component Primes & Subs

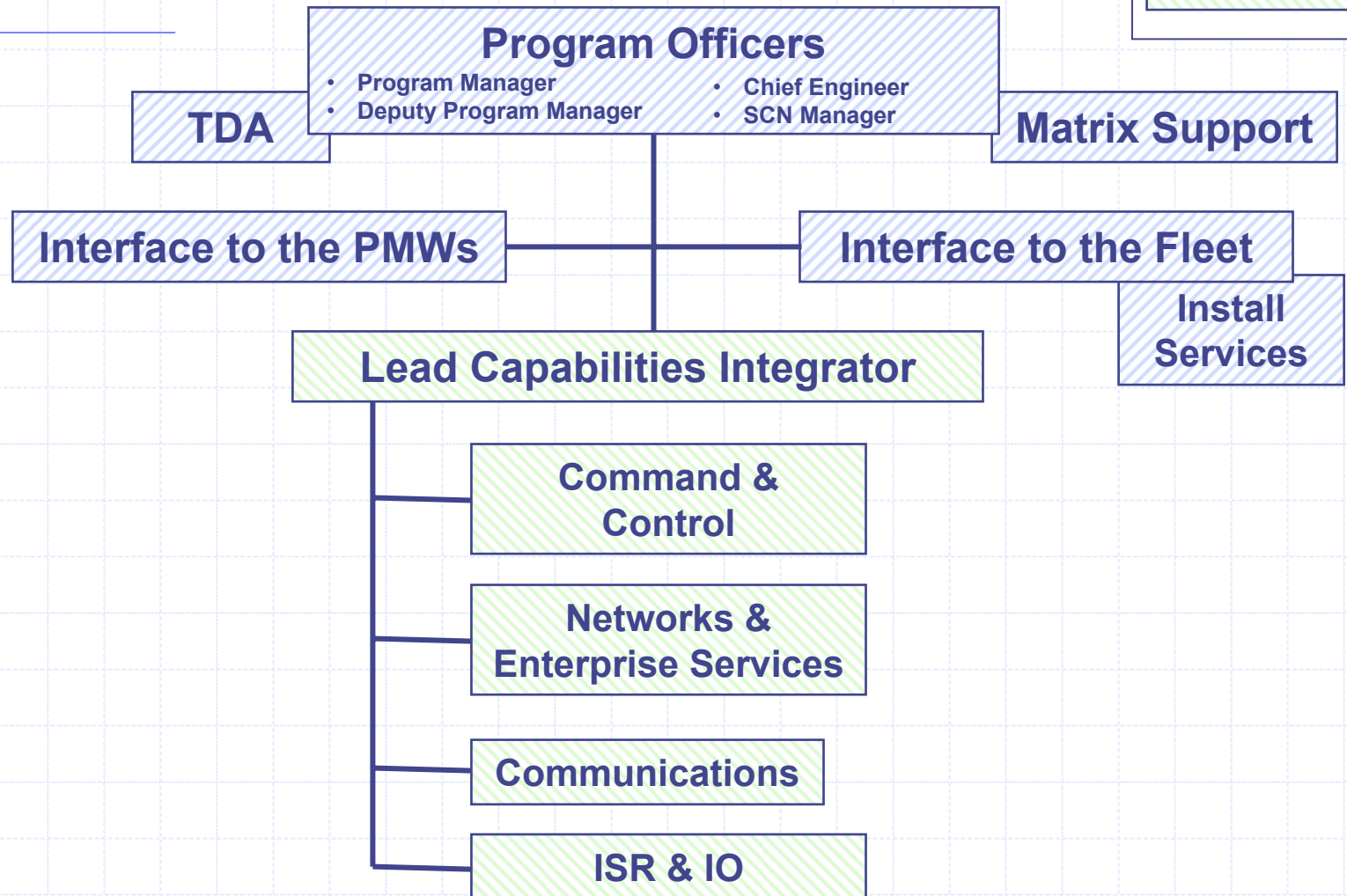
LEGEND

Government

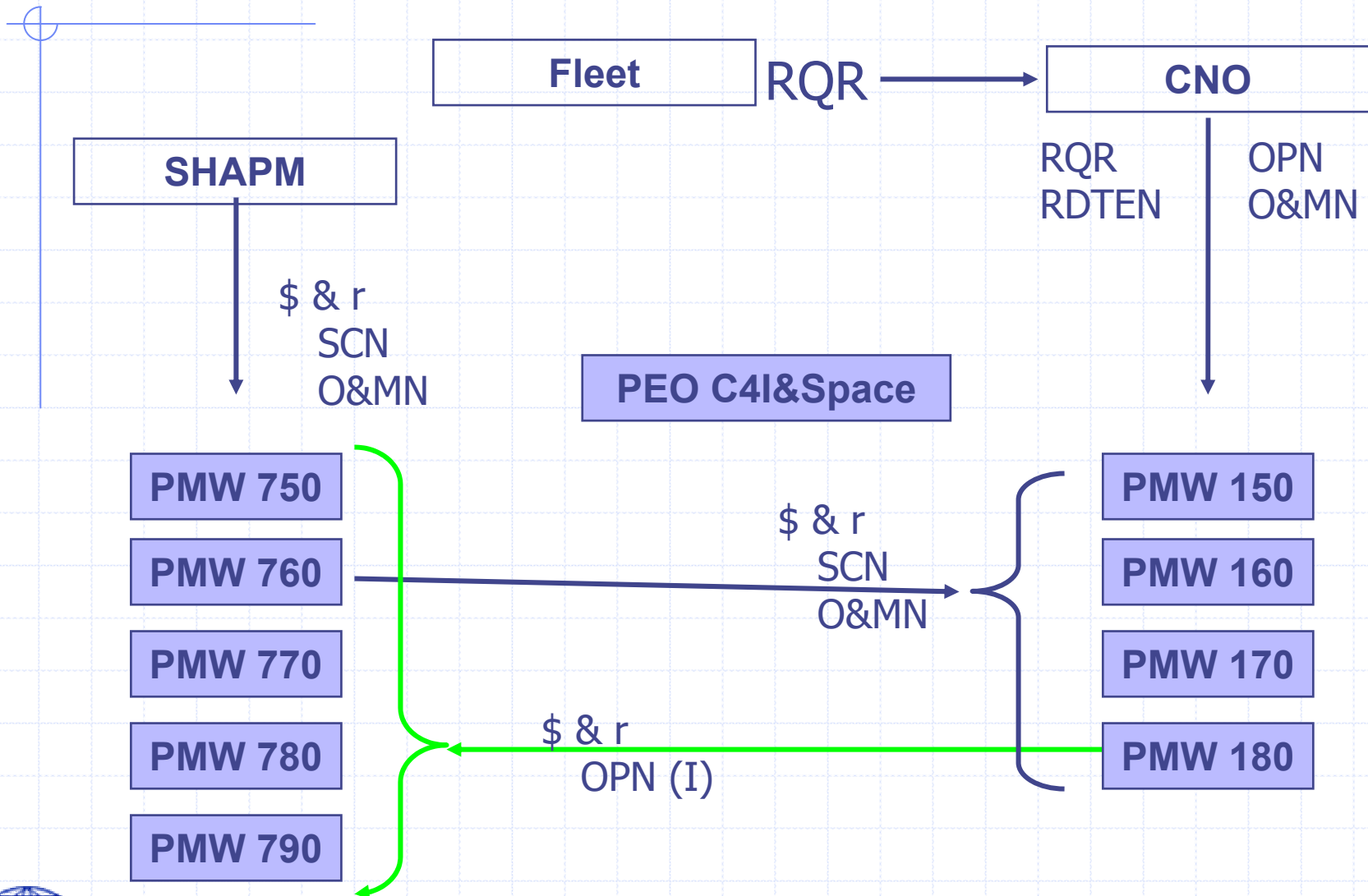
Contractor



Program Hierarchy: Platform



Requirements & Funding Flow Example

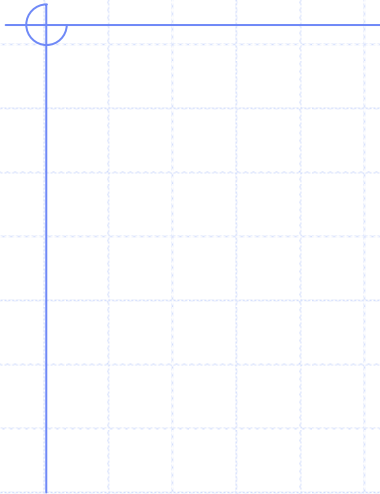


Expanded Implications of the Program Hierarchy

- Aligns Government and Contractor Roles.
 - TDA Role Funded by Program.
 - Eliminates “Contractor APMs”.
 - Resolves Other OCI Issues.
- LSI is the Prime Contractor for the Entire Program Office.
 - Professional Services Excepted.
- Program Office Is Lean.
 - Fewer Primes Means Less Direct Oversight.
 - Less Direct Oversight Requires Fewer People.
- Clarifies Promotion Paths.



Contracting



Contract Types

Plan on a Protest.

- LSI Is the Sole Prime.
- Full and Open—Small Business Set Asides Not Likely
 - RFI – Qualify the Right Prospects.
 - RFP – Full and Open Solicitation.
- Cost Plus
 - Delivering Capability vs. Program and Engineering Services.
- Build in Profit-based Incentive Strategy for Both Fixed Price and Cost Plus.

Can't Limit to Just Qualified List.



Contract Source Selection Criteria: Past Experience

- Demonstrated Experience in:
 - Systems Integration.
 - Subcontractor Management.
 - Team Building.
 - Interfacing with Government Technical Direction Agent.
 - Leading Other DoD (Army, Air Force) C4I&Space Prime Contracts.

- For Platform Program Offices, it's Different.
 - New Construction Prime Contract: Platform Specific.
 - Capabilities Integration.
 - Fleet Modernization: Platform Specific.
 - Integrated Logistics Support.

The Primary Goal is to Evaluate the LSI Role .



Contract Source Selection Criteria: Past Performance

- Outstanding Grades at:
 - Performing as an ACAT I Program Prime.
 - Meeting or Exceeding Small Business Goals.
 - Managing the Satisfactory Performance of Subcontractors.
 - Integrating Government Furnished Equipment (GFE).
 - Cost Plausibility: Identify Contracts and POCs to Compare Bid vs. Actual Costs of Recent High-value Contracts.

Be Prepared to
Justify These
Criteria.



Contract Source Selection Criteria: LSI Plan

- Define the following (Include How LSI Will Interface to the Government):
 - Roles & Responsibilities
 - Structure
 - Efficiency
 - Effectiveness

The government should have a good plan for comparison. Contract (BAH, e.g.) for this product before the RFP.



Contract Source Selection Criteria: Personnel

- Identify the Right Key Personnel.
 - PM
 - SYS ENG
 - SME for all component programs
- Provide Performance-based Personnel Qualification Standards.
 - Key Personnel
 - Non-key Personnel



Contract Source Selection Criteria: Other Elements

- Organizational Conflict of Interest Plan
- Transition Plan
 - Moving legacy contracts to the new vehicle.
 - Must consider SEAPORT E.
- Cost Evaluation Criteria
 - Efficiency at the LSI Level.
 - Low Passthrough.
 - Best-value Components.
 - Cost Realism
 - Staffing
 - Comparing Cost to Technical Approach

The Government Must Take Care to Ensure the LSI Role Does Not Include Determining Requirements.



Contract Structure: Competition / Teaming

- Require a Subcontractor Competition Plan as Part of the Proposal.
- Prescribe Non-exclusive teaming agreements.
 - Competition is primarily about the LSI role and secondarily about the right team members.
- Maintain Competition by Contract Fee Structure:
 - Meeting Small Business Goals. Add 2% Fee.
 - Not Meeting Small Business Goals. Deduct 2% Fee.
 - Meeting Competition Goals. Similar Incentives.

Not sure this is doable.



Contract Incentives: Sharing Risks and Rewards.

- Contract Must Incentivize Success.
- Establish a Matrix of Contract Types and Fees.
 - FFIF / FFAF / CPFF / CPIF / CPAF
- First Element: Fixed Fee.
 - Fixed Percentage of Cost is Good Choice.
 - Fixed Amount per Hour is Poor Choice.
- Second Element: Performance Award, Positive and Negative.
 - Fee and Term are both Good Choices.
 - Performance Based. Must Precisely Define Performance Objectives.

This is the hard part!



Contract Incentives: Sharing Risks and Rewards.

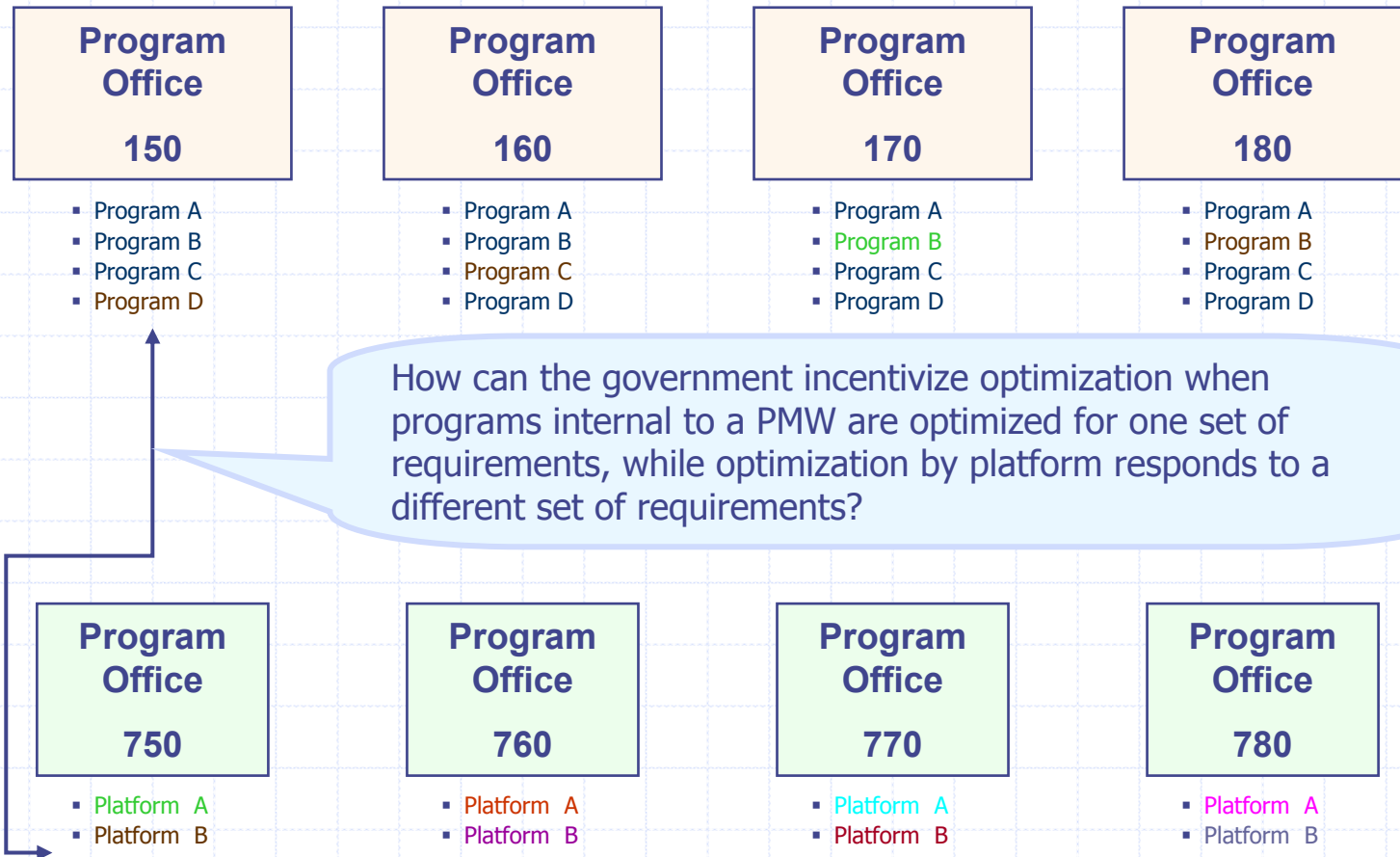
- Third Element: Cost & Schedule Incentives, Positive and Negative.
 - Fee and Term are both Good Choices.
 - Reward Meeting Target Schedule.
 - Reward Cost: Meeting Target and **Achieving Savings.**
- Fourth Element: Coordination with Other LSIs, Positive and Negative.
 - Fee and Term are both Good Choices.
 - Reward ???.
 - Reward ???.

Change Orders will cause a renegotiation of the target.

The LSI Role Will Add Cost to the Program Office. The LSI Should Be Able to Recover This Cost in Development Efficiencies.



Enterprise Capability Integration

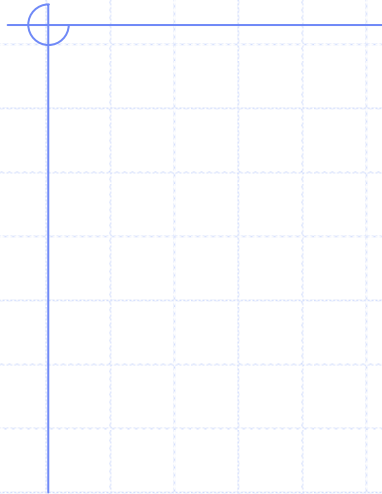


Other Concerns

- Watch Out for the Contractor Performing Inherently Government Functions such as Decision Making. This is Illegal.
- Watch Out for OCI. The LSI is Foreclosed From Bidding Any Hardware Contracts if the Contractor is Establishing Requirements.
- Take Care of the CICA (Competition in Contracting Act).
- Contract bundling. What steps can be taken to mitigate direct effects on participation by small businesses?
- The Perfect Storm: Halliburton; Boeing; GSA ID/IQ for Intelligence Interrogation; Darlene Druyun—Lots of Scrutiny Today.



Lead / Follower Projects



Examine the LSI Role

- Establish Two “Small” Scale LSI Contracts:
 - One LSI-like Program
 - One Non LSI-like Program
- Work Through the Process:
 - Roles and Responsibilities
 - Contracting
- Determine:
 - Is This A Success Story for This Business Model?
 - Can the Government Deliver Products Under This Model?
 - Can the Government Afford This Model?



Establish a “Skunk Works”

- Desire is to Increase PEO Product Quality.
- Follow the Hewlett-Packard Model.
 - Sociotechnical Systems (STS) Redesign.
- Follow the IA (was PMW 161) Model
 - NETWARCOM Development Node, Monterey, CA.



Divesting Small Programs

- Desire is to Increase PEO Efficiency.
- SPAWAR Systems Centers Can Manage Small Programs.
- Could Conduct A Lead / Follower Program.
- Select Programs Past Milestone C Where Upgrades are not Ongoing.



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“Full-Service Contractor” Business Model

- Differs from traditional acquisition strategies in a number of ways.
 - FSC Business Model shifts responsibility and accountability for lifetime support of a weapon system to a single industry point of contact.
 - FSC is responsible for the design, development, production, and lifetime support of the system.
 - FSC would likely become the integrator of contractor and Government capabilities to facilitate the full range of support during peace and war.
- Significant Government and Industry concerns about the legality and implementation of the FSC Business Model.



Moving the Cheese



PMW Discussions

- Desire is to Include PM's Approach.
- Exchange Ideas with AFCEA PEO Study Team.
- Include Findings in Defining Off-site Structure.



Conduct an Off-site Series

- Desire is to Include Stakeholders in the Decision Process.
- Start with a Strawman Concept and Iterate.
 - Define LSI Roles and Responsibilities (Functional and Platform).
 - Assess Current Government and Contractor R&R.
 - Establish a Transition Plan.
 - Identify Opportunities for Consolidation and Alignment Efficiencies within the Components.
- Decide Initial Program Office(s) and Implement.



Part II. How Does The PEO:

- Focus on Capabilities Vice Products.
 - Align to DoN Vision of a Networked Force.
 - Align With Fleet, OPNAV and POM Process.
- Become C4I Provider for New Platforms.
 - Currently Do Fleet Modernization Almost Exclusively.
 - Platform Solutions Sub-optimal in Interoperability and Sustainability.
 - Improve Commonality.
- Become Even More Efficient.
 - Divest Any Product Lines Not in Our Core Expertise.
 - Consolidate Commodity Acquisition (PCs, Routers, Antennas).
 - Reduce Organizational Infrastructure.
- Align to PEO C4I Roadmap.
 - Positioned to Implement C4I Portion of FORCEnet.



Focus on Capabilities Vice Products

- Align to DoN Vision of a Networked Force
 - ✓ The New Organization is Tuned To:

Move Information

Provide a Secure Network Infrastructure

Provide Warfighting Picture

Provide ISR & IO

- ✓ Align With Fleet, OPNAV, and POM Process



Become C4I Provider for New Platforms

- Empower the Platform PMWs.
 - SCN & O&M Funds Flow Through
 - Requirements Flow Through



Become C4I Provider for New Platforms

- Build a Better Mousetrap.
 - Ensure Competition & Leverage COTS.
 - LSIs Compete Subcontracts for Components
 - Recompete More Rather Than Less Often
 - Encourage Innovation.
 - Small Business R&D Primes
 - Focus SBIR Program
 - Engage DARPA
 - Connect 6.4 to 6.2
 - “Skunk Works”



Become Even More Efficient

- Lean Program Offices.
- Rely on the SSC Scientists and Engineers for Technical Direction.
- Install Lead System Integrators?
- Associate/Consolidate Programs.
- Minimize Passthrough Costs.



Align to PEO C4I Roadmap

- Complete the Roadmap.
- “Roadshow” the Roadmap.
 - PMWs
 - TDAs
 - NETWARCOM
 - CNO
 - ONR
 - NAVSEA
 - NAVAIR

3. PEO Integrated Network Centric Warfare Roadmap
brief, CAPT Wegmann, 9 September 2004.



Coordinate the PEO Integrated Network Centric Warfare Roadmap

- Refine alignment with economic constraints.
- Underscore Links to the Related Roadmaps: ONR, NETWARCOM, etc.
- Underscore Links to GIG ES, NCES, FORCEnet, Interoperability.
- Underscore Links with Other Services' C4I & Space Programs.
- Include Identification of Enabling Technologies.
- Clarify the Technology Insertion Plan.



Establish C4ISR as a Weapon System

- Publish the Vision and the Roadmap.
 - Sensor to Ordnance via TCP/IP
 - The Network is the Weapon
- Incentivize Achieving the Vision.
 - Define Compliance
 - Award Compliance
 - Penalize Non-Compliance



Other Discussion

AFCEA Stands
Ready to
Continue the
Study.

